

REMARKS

Claims 6 and 9 are pending in the application. Claim 6 has been amended hereby. Claims 1 and 4 have been cancelled, without prejudice or disclaimer. Claim 6 is in independent form. Favorable reconsideration is requested.

Reconsideration is respectfully requested of the rejection of Claims 1 and 6 under 35 U.S.C. §103(a), as being obvious over U.S. Patent Publication No. 2003/0179747 (“Pyke”) in view of U.S. Patent No. 6,262,979 (“Anderson”); and of the rejection of Claims 4 and 9, as being obvious over Pyke in view of Anderson, U.S. Patent No. 6,839,323 (“Foti”), and U.S. Patent Publication No. 2003/0179758 (“Maher”).

Claims 1 and 4 have been cancelled, thereby rendering the rejection thereof moot.

The presently claimed invention is realized by mutual and looped actions of a network processor -> a local switch -> the network processor in a hardware structure.

Namely, in a frame transfer apparatus, as claimed in amended independent Claim 6, *a network processor* determines whether or not a received frame is to be monitored based on a destination address in header information of the received frame, and generates, from the received frame, a single dual-purpose normally-transferred and monitored frame (e.g., FR2 in Fig.4) including the destination address and in-device information when the received frame is found to be monitored.

Then, *a local switch* receives the dual-purpose frame *from the network processor* and multicasts (MC) the dual-purpose frame thereby to generate two frames (e.g., FR4, FR3).

Then, *the network processor* receives the two frames *from the local switch* and edits one of the two frames to generate a monitored frame having unique in-device information without the

destination address (e.g., FR6), and edits the other of the two frames for a normally-transferred frame (e.g., FR5) including the destination address without the in-device information.

Then, a switch portion establishes a path corresponding to each of the edited frames received from the network processor.

Therefore, the network processor can repeatedly edit the same frame, so that the network processor can perform a complicated edition for the same frame.

While the local switch copies or multicasts a frame to generate two frames, enabling identifiers of the frame copied (such as a MAC address depending in the case) to be edited concurrently with the copying, this remains a simple edition.

Accordingly, the present invention as claimed in amended independent Claim 6, can edit a frame in any form by implementing the feature of returning the frame to the network processor from the local switch, for example, by enabling an Ethernet frame to be reformed to another interface frame as well.

Meanwhile, it is also possible to make the same operation with an arrangement in which two network processors sandwich a local switch, however, this arrangement requires two processors.

Namely, with a single network processor and a single local switch according to the present invention, as claimed in amended independent Claim 6, repeated various editions can be made through a network processor -> a local switch -> the network processor.

In contrast, and as previously discussed, Pyke merely discloses a system for intercepting information such as voice over an IP or ATM network, and Anderson merely discloses a system for preventing collisions over Ethernet in a voice information packetizing apparatus which

carries voice data on a network for a data system, not monitoring data, therefore Pyke fails to teach or suggest the aforementioned arrangement, as recited in amended independent Claim 6.

Namely, Pyke in paragraph [0031] at best discloses copying but fails to teach or suggest generating a single dual-purpose normally-transferred and monitored frame including the destination address and the in-device information when the received frame is found to be monitored based on a destination address in header information of the received frame. This is in contrast to the arguments in the Office Action which state that a “frame is received by replicator and a frame is prepared for the replication process, the frame comprising a header, a header normally includes a destination address (IP) and a hardware (MAC) address (in-device information).”

Particularly, the presently claimed invention, as amended along the lines of the description in paragraph [0044] of the specification, with “in-device information transferred to a CPU for monitoring” added to a frame, the frame can be transmitted/received without regard of the addresses through a network processor -> a local switch -> the network processor.

Anderson, Foti, Kung, and Maher fail to cure the deficiencies of Pyke.

Accordingly, it is respectfully submitted that amended independent Claim 6, and the claim depending therefrom, are patentably distinct over the cited references, alone or in any possible combination.

In view of the amendments and remarks set forth above, this application is believed to be in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

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